

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A method comprising the steps of:

a) providing from an infertile male subject having a spinal cord injury a biological sample comprising sperm and at least one cytokine selected from the group consisting of $\text{TNF}\alpha$, $\text{IL1}\beta$, and IL6 ; and

b) detecting a cytokine profile in the sample and identifying which of the at least one or more cytokines are present in the sample in different concentrations as compared to a normal sample;

~~b) c)~~ contacting the biological sample *in vitro* with an agent that ~~inactivates or reduces~~ neutralizes the biological activity of the one or more identified cytokines present in the biological sample ~~at least one cytokine~~ under conditions that result in increased sperm motility, wherein the sperm having increased motility can be used to impregnate a female subject.

Claim 2 (Canceled).

Claim 3 (Previously presented): The method of claim 1, wherein the male subject has leukocytospermia.

Claim 4 (Canceled).

Claim 5 (Original): The method of claim 1 wherein the biological sample comprises a fluid produced by the male reproductive tract.

Claim 6 (Original): The method of claim 1, wherein the biological sample comprises semen.

Claim 7 (Canceled).

Claim 8 (Original): The method of claim 1, wherein the agent is an antibody that specifically binds to the at least one cytokine.

Claim 9 (Original): The method of claim 8 wherein the at least one cytokine comprises TNF α .

Claim 10 (Original): The method of claim 8 wherein the at least one cytokine comprises IL1 β .

Claim 11 (Original): The method of claim 8 wherein the at least one cytokine comprises IL6.

Claim 12 (Previously presented): The method of claim 1, wherein the agent is an antibody that specifically binds to a receptor for the at least one cytokine, the receptor selected from the group consisting of TNF α receptor, IL1 β receptor, and IL6 receptor.

Claim 13 (Previously presented): The method of claim 12, wherein the receptor comprises a TNF α receptor.

Claim 14 (Previously presented): The method of claim 12, wherein the receptor comprises an IL1 β receptor.

Claim 15 (Previously presented): The method of claim 12, wherein receptor comprises an IL6 receptor.

Claim 16 (Original): The method of claim 1, wherein the agent is a soluble cytokine receptor that specifically binds to the at least one cytokine.

Claim 17 (Original): The method of claim 16, wherein the soluble cytokine receptor comprises a soluble TNF α receptor.

Claim 18 (Original): The method of claim 16, wherein the soluble cytokine receptor comprises a soluble IL1 β receptor.

Claim 19 (Original): The method of claim 16, wherein the soluble cytokine receptor comprises a soluble IL6 receptor.